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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,168	07/09/2001	Akira Kamiya	2001_0976A	5407
513 7590 02/25/2004 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021			EXAMINER LEE, RICHARD J	
			ART UNIT 2613	PAPER NUMBER 3

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/900,168

Applicant(s)

KAMIYA, AKIRA

Examiner

Richard Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because the Abstract should be limited to a single paragraph. Correction is required. See MPEP § 608.01(b).

3. The drawings are objected to because:

(a) steps S304 and S312 as shown in Figure 3 of the drawings have not been identified in the Specification;

(b) step S503 as shown in Figure 5 of the drawings has not been identified in the Specification; and

(c) step S910 as shown in Figure 9 of the drawings has not been identified in the Specification.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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4. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For examples:

- (1) claim 1, lines 24-25, "said separate buffer" shows no clear antecedent basis;
- (2) claim 1, line 24, "said decoder" shows no clear antecedent basis;
- (3) claim 1, line 26, line 27, "the selected separate buffer" shows no clear antecedent basis, respectively;
- (4) claim 1, line 29, "said selected decoder" shows no clear antecedent basis;
- (5) claim 3, lines 3-4, line 5, line 12, lines 13-14, claim 4, lines 3-4, line 5, lines 9-10, lines 12-13, "the specific separate buffer" shows no clear antecedent basis, respectively;
- (6) claim 3, line 8, lines 15-16, lines 18-19, claim 4, line 8, lines 14-15, line 18, "said specific separate buffer" shows no clear antecedent basis, respectively;
- (7) claim 3, line 11, claim 4, line 11, "said decoder" shows no clear antecedent basis, respectively;
- (8) claim 5, lines 8-9, "the plurality of separate buffers" shows no clear antecedent basis;
- (9) claim 5, lines 10-11, claim 6, lines 4-5, line 7, "said plurality of separate buffers" shows no clear antecedent basis, respectively;
- (10) claim 7, line 2, lines 5-6, claim 8, line 3, "the specific separate buffer" shows no clear antecedent basis, respectively; and
- (11) claim 7, lines 4-5, line 7, lines 8-9, claim 8, lines 5-6, lines 7-8, line 9, lines 10-11, "said specific separate buffer" shows no clear antecedent basis, respectively.

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawakami (6,332,058).

Kawakami discloses an information reproduction apparatus as shown in Figures 1 and 2, and the same multiple decoding apparatus receiving a signal composed of a plurality of encoded data for simultaneously decoding two or more of the data (see Figures 1 and 2) as claimed in claim 1, comprising the same reproduction controller (i.e., 24, 36 of Figure 2) for outputting various types of control information related to decoding and reproduction of the data; a date extractor (i.e., MPEG core server 18 of Figures 1 and 2) for receiving the signal for extracting the two or more data designate by the control information; a buffer (i.e., 20, 30 of Figure 2) storing the data extracted by the data extractor; a buffer manager (i.e., within core server 18 of Figures 1 and 2, and see column 5, lines 1-30) for controlling the buffer in accordance with the control information for the buffer; a data flow controller (i.e., 40 of Figure 2 and see column 5, lines 46-54, column 7, lines 7-18) for distributing the data stored in the buffer for each type and transferring the data in accordance with provided transfer conditions; a plurality of separate buffers (i.e., 34 of Figure 2) for respectively storing the data distributed and transferred by the data flow controller; a separate buffer manager (i.e., 32 of Figure 2 and see column 5, lines 31-

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45) for respectively controlling the separate buffers in accordance with information related to the specification of the separate buffer; a plurality of decoders (i.e., 22 of Figures 1 and 2) respectively corresponding to the plurality of separate buffers for decoding the data stored in the separate buffers and outputting the decoded data; and a decoding controller for selecting the separate buffer and the decoder (i.e., CPU group 36 outputs control signal 38 in response to a request from external controller 24, thereby selecting the desired information for decoding to the respective buffer and decoder, see column 5, lines 46-54, column 7, lines 7-38) which are used for the decoding in accordance with the control information, and outputting information related to the selected separate buffer, the transfer conditions based on the selected separate buffer, and an instruction to start the decoding, respectively, to the separate buffer manager, the data flow controller, and the selected decoder (i.e., controller 24 and CPU group 36 controls all the hardware structures, see columns 5-7). In addition, Kawakami shows the same multiple decoding method as claimed in claim 5, in which a signal composed of a plurality of encoded data is inputted, to simultaneously decode two or more of the data (see Figures 1 and 2), comprising the same inputting the signal and extracting the two or more data to be decoded and reproduced (i.e., 18 of Figures 1 and 2); storing the extracted data in a buffer (i.e., 30 of Figure 1); distributing the data stored in the buffer for each type and respectively storing the data in the plurality of separate buffers (i.e., 34 of Figure 2); and respectively decoding the data stored in the plurality of separate buffers and outputting the decoded data (i.e., as provided by 22 of Figure 2).

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7. Claims 2-4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami as applied to claims 1 and 5 in the above paragraph (6), and further in view of Haskell et al (5,159,447).

Kawakami discloses substantially the same multiple decoding apparatus and method as above, but does not particularly disclose, though, the followings:

(a) the buffer manager outputs, when the buffer becomes full of the data, an overflow notification to the reproduction controller; the reproduction controller outputs, upon receipt of the overflow notification, an instruction to stop the data extraction to the data extractor, and outputs an initialization instruction to the decoding controller; the decoding controller outputs, upon receipt of the initialization instruction from the reproduction controller, an instruction to initialize all the plurality of separate buffers to the separate buffer manager, outputs to the buffer manager an instruction to initialize the buffer, and respectively outputs instructions to stop the decoding to all the plurality of decoders; the buffer manager initializes the buffer in accordance with the initialization instruction from the decoding controller; the separate buffer manager initializes all the plurality of separate buffers in accordance with the initialization instruction from the decoding controller; and all the processing which is stopped is resumed after all the buffer and the plurality of separate buffers are initialized as claimed in claim 2;

(b) the separate buffer manger outputs, when the specific separate buffer becomes full of the data, an overflow notification that the specific separate buffer overflows to the decoding controller, the decoding controller outputs, upon receipt of the overflow notification that the separate buffer overflows, an instruction to stop the data transfer to the specific separate buffer to the data flow controller, an instruction to discard the data directed toward the specific separate

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buffer to the data flow controller, outputs an instruction to stop the decoding to the decoder corresponding to the specific separate buffer, and outputs to the separate buffer manager an instruction to initialize the specific separate buffer, the separate buffer manager initializes the specific separate buffer in accordance with the initialization instruction from the decoding controller, and all the processing which is stopped is resumed, and the discard of the data is released after the specific separate buffer is initialized as claimed in claims 3 and 4;

(c) when the buffer becomes full of the data, stopping extraction and decoding of the data, initializing all the buffer and the plurality of separate buffers, and resuming all the processing which is stopped after all the buffer and the plurality of separate buffers are initialized; when the specific separate buffer becomes full of the data, discarding the data directed toward the specific separate buffer, stopping the distribution of the data into the specific separate buffer and the decoding of the data stored in the specific separate buffer, initializing the specific separate buffer, and resuming all the processing which is stopped after the specific separate buffer is initialized, and releasing the discard of the data as claimed in claims 6-8.

Regarding (a) to (c), Haskell et al discloses a buffer control for variable bit rate channel as shown in Figures 1-4, and teaches the conventional notification of overflow situations associated with encoder and decoder buffers (see column 17, line 66 to column 18, line 13), and the particular termination of packets of data within the decoder as one way of preventing overflow in the buffers, thereby stopping decoding to the decoder, data extraction, data transfer to the specific buffer, and discarding data directed toward the specific buffer (see column 16, lines 27-39). It is noted that Haskell et al is however silent as to the initialization of the respective buffer components in response to the overflow notification and the subsequent

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resuming of the processing which was stopped after buffer initialization and the discard of the data is released after the buffer is initialized as claimed. But, it is considered obvious even without specific disclosure that once the packets are terminated within Haskell due to buffer overflow, the buffers of Haskell must be initialized since the existing data within the buffers are of no use and so that the buffers could be properly re-set. Further, after such buffer initialization and re-setting within Haskell, all processing will therefore be resumed, and the discarded data is released (i.e., the existing data in the buffer is of no use and therefore is released) after buffer initialization. Therefore, it would have been obvious to one of ordinary skill in the art, having the Kawakami and Haskell et al references in front of him/her and the general knowledge of video encoder and decoder buffer fullness, would have had no difficulty in providing the overflow notification, termination of packets of data within the decoder as one way of preventing overflow in the buffers, thereby stopping decoding to the decoder, data extraction, data transfer to the specific buffer, and discarding data directed toward the specific buffer as taught by Haskell as well as the obvious initialization of buffers upon receipt of an overflow notification and the subsequent resuming of the processing which was stopped after buffer initialization and the discard of the data is released after the buffer is initialized within Haskell for the multiple decoder of Kawakami so that the buffer manager, reproduction controller, decoding controller, and separate buffer manager of Kawakami may proper respond to the overflow notification for the same well known video decoder buffer overflow protection purposes as claimed.

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8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Siong et al, de Haas, Botsford, III et al, Nishida et al, Ngai, and Uchide disclose various types of buffering techniques for video.

9. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:


(703) 872-9314, (for formal communications intended for entry)

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (703) 308-6612. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group customer service whose telephone number is (703) 306-0377.


RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

2/20/04

